AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1.   (Original)   A communication performance calculation method in a mobile communication system which includes a plurality of base stations and a plurality of mobile stations for carrying out communication with the base stations, wherein an area where the mobile stations are distributed is divided into a plurality of subdivisions, said communication performance calculation method comprising:

a transmission power data storing step of storing transmission power data of the base stations corresponding to the subdivisions and/or of the mobile stations visiting the subdivisions;

a traffic intensity data storing step of storing traffic intensity data of the subdivisions;

a traffic calculating step of calculating a mean and variance of applied traffic at the base stations; and

a communication performance calculating step of calculating communication performance from the mean and variance.

Claim 2.   (Original)   The communication performance calculation method as claimed in claim 1, wherein said traffic calculating step comprises:

a first calculating step of calculating, from the transmission power data of the mobile

stations stored in the transmission power data storing step, received power at the base stations of

signals sent from the mobile stations to the base stations; and

a second calculating step of calculating, from the traffic intensity data stored in the traffic

intensity data storing step and the received power, the mean and variance of the applied traffic at

the base stations.

Claim 3.   (Original)   The communication performance calculation method as

claimed in claim 1, wherein said traffic calculating step comprises:

a third calculating step of calculating the mean and variance of the applied traffic at the

base stations from the transmission power data of the base stations stored in the transmission

power data storing step, and from the traffic intensity data stored in the traffic intensity data

storing step.

Claim 4.   (Original)   The communication performance calculation method as

claimed in claim 1, wherein said communication performance calculating step comprises:

a probability calculating step of calculating probability distribution from the mean and

variance of the applied traffic; and

a probability decision step of calculating a probability that the applied traffic exceeds a

predetermined threshold value.

Claim 5.   (Original)   The communication performance calculation method as claimed in claim 4, wherein said probability decision step comprises a step of setting acceptable interference power to the base stations or its constant multiple as the threshold value.

Claim 6.   (Original)   The communication performance calculation method as claimed in claim 4, wherein said probability decision step comprises a step of setting a sum of acceptable interference power to the base stations or its constant multiple and thermal noise power of receivers in base stations as the threshold value.

Claim 7.   (Original)   The communication performance calculation method as claimed in claim 4, wherein said probability decision step comprises:

a threshold value calculating step of carrying out calculation using a ratio of a sum of acceptable interference power to the base stations or its constant multiple and thermal noise power of receivers in the base stations to thermal noise power of the receivers; and

a step of setting a calculation result in the threshold value calculating step as the threshold value.

Claim 8.   (Original)   The communication performance calculation method as claimed in claim 4, wherein said probability decision step comprises a step of setting a total sum of maximum transmission powers of the base stations or its constant multiple as the threshold value.

Claim 9.　　(Original)　　A computer readable recording medium storing a program causing a computer to execute a communication performance calculation method in a mobile communication system which includes a plurality of base stations and a plurality of mobile stations for carrying out communication with the base stations, wherein an area where the mobile stations are distributed is divided into a plurality of subdivisions, said communication performance calculation method comprising:

a transmission power data storing step of storing transmission power data of the base stations corresponding to the subdivisions and/or of the mobile stations visiting the subdivisions;

a traffic intensity data storing step of storing traffic intensity data of the subdivisions;

a traffic calculating step of calculating a mean and variance of applied traffic at the base stations; and

a communication performance calculating step of calculating communication performance from the mean and variance.

Claim 10.　　(Original)　　A communication performance calculation apparatus in a mobile communication system which includes a plurality of base stations and a plurality of mobile stations for carrying out communication with the base stations, wherein an area where the mobile stations are distributed is divided into a plurality of subdivisions, said communication performance calculation apparatus comprising:

transmission power data storing means for storing transmission power data of the base stations corresponding to the subdivisions and/or of the mobile stations visiting the subdivisions;

traffic intensity data storing means for storing traffic intensity data of the subdivisions;

traffic calculating means for calculating a mean and variance of applied traffic at the base

stations; and

communication performance calculating means for calculating communication

performance from the mean and variance.

Claim 11.   (Original)   The communication performance calculation apparatus as

claimed in claim 10, wherein said traffic calculating means comprises:

first calculating means for calculating, from the transmission power data of the mobile

stations stored by said transmission power data storing means, received power at the base

stations of signals sent from the mobile stations to the base stations; and

second calculating means for calculating, from the traffic intensity data stored by said

traffic intensity data storing means and the received power, the mean and variance of the applied

traffic at the base stations.

Claim 12.   (Original)   The communication performance calculation apparatus as

claimed in claim 10, wherein said traffic calculating means comprises:

third calculating means for calculating the mean and variance of the applied traffic at the

base stations from the transmission power data of the base stations stored by said transmission

power data storing means, and from the traffic intensity data stored by said traffic intensity data

storing means.

Claim 13.   (Original)   The communication performance calculation apparatus as

claimed in claim 10, wherein said communication performance calculating means comprises:

probability calculating means for calculating probability distribution from the mean and variance of the applied traffic; and

probability decision means for calculating a probability that the applied traffic exceeds a predetermined threshold value.

Claim 14.   (Original)   The communication performance calculation apparatus as claimed in claim 13, wherein said probability decision means comprises means for setting acceptable interference power to the base stations or its constant multiple as the threshold value.

Claim 15.   (Original)   The communication performance calculation apparatus as claimed in claim 13, wherein said probability decision means comprises means for setting a sum of acceptable interference power to the base stations or its constant multiple and thermal noise power of receivers in base stations as the threshold value.

Claim 16.   (Original)   The communication performance calculation apparatus as claimed in claim 13, wherein said probability decision means comprises:

threshold value calculating means for carrying out calculation using a ratio of a sum of acceptable interference power to the base stations or its constant multiple and thermal noise power of receivers in the base stations to thermal noise power of the receivers; and

means for setting a calculation result by said threshold value calculating means as the threshold value.

Claim 17.   (Original)   The communication performance calculation apparatus as claimed in claim 13, wherein said probability decision means comprises means for setting a total sum of maximum transmission powers of the base stations or its constant multiple as the threshold value.

Claims 18-28 (Cancelled).